

### Associations

As was expected and appreciated, the Associations representing various licensee constituencies offered comments within this proceeding.<sup>61</sup> SBT's reply to many of these comments is as follows:

#### AAR

As representative of a unique group of licensees which seek status as a portion of CII and whose railroad members constitute an important element of the nation's transportation and hauling concerns, AAR comments were relevant to assuring that the actions which might be taken pursuant to this proceeding do not unfairly impact its membership. To protect its members' concerns, AAR stated that it supported Nextel's abandonment of future operations within the 900 MHz band, fearing that any such operations would result in a repeat of the problems created by Nextel within the 800 MHz band.<sup>62</sup> AAR urged the Commission to employ relocation of B/ILT operators as a last resort for solving the noted interference problems and

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<sup>61</sup> See, comments of National Ready Mixed Concrete Association ("NRMCA"); American Water Works Association ("AWWA"); American Petroleum Institute ("API"); Satellite Industry Association ("SIA"); The International Association of Fire Chiefs, Inc. ("IAFC"); International Municipal Signal Association ("IMSA"); Association of Public Safety Communications Officials-International, Inc. ("APCO"); National Association of Counties ("NACo"); National League of Cities ("NLC"); National Association of Telecommunications Officers and Advisors ("NATOA"); American Mobile Telecommunications Association, Inc. ("AMTA"); Cellular Telecommunications an Internet Association ("CTIA"); National Rural Telecommunications Cooperative ("NRTC"); The Forestry Conservation Communications Association ("FCCA"); International Association of Chiefs of Police ("IACP"), Major Cities Chiefs Association ("MCC"), National Sheriff's Association ("NSA") and Major County Sheriffs' Association ("MCSA"); National Association of Manufacturers and MRFAC, Inc. ("NAM/MRFAC"); Telecommunications Industry Association ("TIA"); National Association of Amateur Radio Operators ("ARRL"); Society of Broadcast Engineers, Inc. ("SBE"); American Public Transportation Association ("APTA").

<sup>62</sup> See, comments of AAR at 3.

strongly stated that any relocation of B/ILT users should be performed only after a method of compensation to relocating entities was established.<sup>63</sup> SBT agrees, in the main, with AAR's stated positions.

#### APTA

APTA is also a proclaimed CII and it opposes vigorously Nextel's proposal to relegate its members' facilities to secondary status or to relocate those facilities to 900 MHz.<sup>64</sup> APTA also cites the lack of management software which works in association with the use of 700 MHz systems and, thus, would pose a great and unnecessary risk on its members to migrate to that spectrum.<sup>65</sup> Therefore, APTA urges the Commission to not relocate its members' systems and to allow APTA members to remain undisturbed within the 800 MHz band.<sup>66</sup> Petitioners concur with APTA sentiments.

#### IAFC/IMSA

The joint comments reject relocating public safety users, particularly to 700 MHz, and suggests that all burden of relocation be place on CMRS users.<sup>67</sup> They also note that changing

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<sup>63</sup> *Id.* at 2.

<sup>64</sup> See, comments of APTA at 2.

<sup>65</sup> *Id.* at 2.

<sup>66</sup> *Id.* at 3.

<sup>67</sup> See, comments of IAFC/IMSA at 7-11.

receiver standards will not resolve problems arising from intermodulation products.<sup>68</sup> Employing laudable equity, the joint commenters stated that imposing secondary status on B/ILT licensees is impractical.<sup>69</sup> And, as expected, the joint comments stated that any relocation of public safety entities should be subject to complete reimbursement.<sup>70</sup> As this time, IAFC/IMSA is requesting that extensive empirical research be performed to identify the best, most cost efficient and least disruptive methods of controlling interference. Although SBT sympathizes with the joint commenters suggestions regarding the equities of relocating all CMRS operators versus public safety users, the suggestion appears impractical.

APCO/NACo/NLC/NATOA (collectively APCO)

These commenting parties point out the difficulty in public safety entities' contributing the necessary resources to identification and elimination of interference problems caused by operations of interfering CMRS operators. As a first priority, APCO seeks short term solutions to deal with existing and near-term interference concerns. As a second priority, APCO supports rebanding with the caveat that public safety users obtain greater amounts of spectrum pursuant to that rebanding.<sup>71</sup> They reject all proposals which suggest that public safety would employ commercial operations for "mission critical" purposes and seek, instead, greater amounts of spectrum to promote extensions of existing operations and increases in interoperability

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<sup>68</sup> *Id.* at 6.

<sup>69</sup> *Id.* at 10.

<sup>70</sup> *Id.* at 10-11.

<sup>71</sup> *See*, comments of APCO at 10-11.

capacity.<sup>72</sup> APCO rejects the NAM proposal as failing to provide additional spectrum for public safety.<sup>73</sup>

SBT believes that short term solutions have been proposed herein which will go great lengths toward assisting public safety licensees and all other adversely affected persons in obtaining greater certainty and reliability in the operation of their systems. Although there is no solution which would provide additional 800 MHz spectrum to public safety uses, which solution would not come at the expense of other licensees, the proposed relocation of public safety to 700 MHz would accomplish that goal. If, however, the Commission deems that public safety requires additional 800 MHz spectrum, the only equitable means of identifying such spectrum is to review exclusively that spectrum employed by interfering operators.

As also expected, APCO is not convinced that the \$500 million offered by Nextel is nearly sufficient for the purpose of relocating public safety users and APCO recommends that any obligation to reimburse such costs not be capped.<sup>74</sup> Otherwise, APCO provides some support for Nextel's proposal due to public safety's receipt of more spectrum thereunder. At the risk of being flippant, APCO's comments support additional spectrum and a blank check to be issued to its members. That B/ILT and SMR licensees might also be subjected to massive costs unfortunately does not appear to be a matter of high concern.

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<sup>72</sup> *Id.* at 16-19.

<sup>73</sup> *Id.* at 23.

<sup>74</sup> *Id.* at 22.

## AMTA

AMTA does not support any plan proposed prior to the filing of its comments, stating that no plan appears sufficient to resolve the interference problem.<sup>75</sup> AMTA questions the validity of separating public safety and CMRS uses as not resulting in sufficient benefit to warrant the enormous costs to all affected entities.<sup>76</sup> The association, therefore, emphasizes an increased effort to resolve interference on a case-by-case basis while all parties engage in much more research to determine cost-effective, efficient means of resolving the problem. AMTA states its rejection of any plan which requires the cost to fall upon public safety or non-interfering 800 MHz operators<sup>77</sup> and in this we agree.

## CTIA

The association contends that most of the incidents of interference which arise are best handled on a case-by-case basis and commits its members to that goal. Over the long term, CTIA believes that any rebanding should encompass both the 700 and 800 MHz bands and should be performed in conjunction with upgrades in manufacture of public safety receiver equipment.<sup>78</sup> As Petitioners recommended above, CTIA believes that carriers should be performing intermodulation testing as part of their general engineering testing to identify

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<sup>75</sup> See, comments of AMTA at 1.

<sup>76</sup> *Id.* at 6.

<sup>77</sup> *Id.* at 8.

<sup>78</sup> See, comments of CTIA at 2.

potential problems before they arise.<sup>79</sup> CTIA supports public safety's relocation to 700 MHz and vigorously rejects Nextel's proposal to obtain spectrum at the 1.9 or 2.1 GHz band.<sup>80</sup> In the main, SBT strongly agrees with CTIA's general positions.

#### SBE

The Society expressed grave doubts about Nextel's proposed relocation into the 1.9 GHz band as creating a serious threat of interference within the band or being the recipient of interference from existing users.<sup>81</sup> In the event that incumbents within the band are displaced, SBE argues that full reimbursement for costs of relocation should be provided.<sup>82</sup> Since SBT strongly disagrees with granting any such spectrum to Nextel, we side with SBE's concerns, including its request for full compensation for any relocation costs which its members might be made to bear.

#### NRTC

The cooperative strongly opposes the Nextel proposals as costly and unjust in that their members would be forced to relocate.<sup>83</sup> Pursuant to any obligation to relocate, the cooperative is highly concerned of what costs would need to be borne by consumers due to the enormous costs

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<sup>79</sup> *Id.* at 8.

<sup>80</sup> *Id.*

<sup>81</sup> *See*, comments of SBE at 2.

<sup>82</sup> *Id.* at 3.

<sup>83</sup> *See*, comments of NRTC at 3.

of relocation of affected member systems.<sup>84</sup> It also worried that service outages would occur and adequate coordination would be lost due to relocating radio systems.<sup>85</sup> The cooperative dismissed the idea of secondary status as entirely inappropriate and stated that any effort which is required to resolve future interference threats should be the burden of the interfering parties pursuant to technical solutions or negotiated channel swaps.<sup>86</sup> Again, SBT agrees with the consistent, shared position of individual, corporate and association comments which in the vast majority support equitable solutions.

#### ARRL

The league rejected any use of the 2390-2400 MHz band for use by Nextel in any relocation plan.<sup>87</sup> ARRL pointed out that its communications support public safety efforts during times of disaster and that its members' operations on the band is incompatible with Nextel's intended use.<sup>88</sup> SBT agrees with ARRL's description of its participation in supporting public safety and its rejection of Nextel's occupation of the subject band.

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<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> *Id.* at 5.

<sup>87</sup> *See*, comments of ARRL at 2.

<sup>88</sup> *Id.*

## SIA

SIA stated that “the Commission should remove from further consideration in this proceeding the possibility of a reallocation of 2 GHz Mobile Satellite Service (MSS) spectrum.”<sup>89</sup> SIA Comments at 2. The association averred that the Nextel proposal was the most burdensome, most disruptive, most expensive and most spectrally inefficient of the proposals to date.<sup>90</sup> SBT strongly agrees. Further, it urged the Commission to conclude that the 2 GHz MSS spectrum is unavailable due to a number of ongoing proceedings regarding future use of the band and that existing proposed uses of the band would result in a far better use of the band than that proposed by Nextel.<sup>91</sup> Accordingly, SIA asked that the agency remove the band for such consideration and allow the users the ability to seek additional investment in MSS operations without battling the uncertainty of whether a relocation is possible.<sup>92</sup>

## FCCA

The association favored the Nextel plan due to the additional spectrum it would provide its members,<sup>93</sup> however, it pointedly noted that the \$500 million offered by Nextel would be insufficient to bear the cost of implementing the plan.<sup>94</sup> FCCA did speak to technical solutions

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<sup>89</sup> See, comments of SIA at 2.

<sup>90</sup> *Id.* at 4.

<sup>91</sup> *Id.* at 4 and 5.

<sup>92</sup> *Id.* at 6.

<sup>93</sup> See, comments of FCCA at 2.

<sup>94</sup> *Id.* at 3.



being applied, asking that whatever method of resolution offered be based on the best technology to relieve the problem.<sup>95</sup> The NAM rebanding plan was rejected due only to its not providing additional spectrum to public safety uses.<sup>96</sup>

IACP/MCC/NSA/MCSA (Collectively, "IACP")

The joint commenting associations stated that the interference problem must be addressed immediately, including, if necessary, the shutting down of offending sites until the problem is fully resolved.<sup>97</sup> SBT concurs. The commenters supported additional allocations at 800 MHz to public safety uses to provide for greater interoperability capability,<sup>98</sup> however, the commenters stated that comprehensive methods to avoid and resolve interference must be established for public safety's use at both 700 and 800 MHz.<sup>99</sup> The joint commenters stated that all cost of implementing any plan should come from other than public safety sources.<sup>100</sup>

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<sup>95</sup> *Id.* at 2.

<sup>96</sup> *Id.*

<sup>97</sup> *See*, comments of IACP at 4.

<sup>98</sup> *Id.* at 8.

<sup>99</sup> *Id.* at 5.

<sup>100</sup> *Id.* at 9.

## NAM/MRFAC

The joint commenters reject any suggestion that its members be reduced to secondary status in future operation within the 800 MHz band.<sup>101</sup> Although its members have received increasing problems of interference from sites operated by Nextel,<sup>102</sup> they resist relocation as an extreme solution for which there has not been developed a sufficient record of cost/benefit to determine whether any such action is warranted.<sup>103</sup> The commenters support relocation of public safety to 700 MHz as a rational, long-term solution.<sup>104</sup> SBT strongly agrees with these statements.

## TIA

The association supports case-by-case resolution of interference problems.<sup>105</sup> TIA does not support any imposition of secondary status on incumbent licensees following relocation.<sup>106</sup> TIA also sees as equitable that any cost of relocation should be funded by other than the

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<sup>101</sup> See, comments of NAM/MRFAC at 8.

<sup>102</sup> *Id.* at 7.

<sup>103</sup> *Id.* at 5.

<sup>104</sup> *Id.* at 4.

<sup>105</sup> See, comments of TIA at 5.

<sup>106</sup> *Id.* at 2.

relocated, non-interfering party.<sup>107</sup> Accordingly, TIA joins SBT and the growing majority of licensees and associations in rejecting any plan that creates a burden for non-interfering parties.

#### NRMCA

NRMCA vigorously opposes the Nextel plan and relocation of its members' systems.<sup>108</sup> The association points out that the plan offered by Nextel would greatly benefit Nextel, well beyond the \$500 million offered<sup>109</sup>. In sum, the cost of relocation of its members' system is deemed fully prohibitive. Again, we are in agreement with this association's comments.

#### AWWA

The association is opposed to all 800 MHz band restructuring and favors technical solutions to resolve interference via proper engineering solutions.<sup>110</sup> AWWA notes that Nextel has been identified as the primary interfering party and urges the Commission to assure that all compensation for any actions taken must be imposed on Nextel.<sup>111</sup> AWWA states that Nextel must be made to shut down interfering sites if no other ready solution to interference is made available.<sup>112</sup> AWWA asks for treatment as a portion of CII and states that, in the event of

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<sup>107</sup> *Id.*

<sup>108</sup> *See*, comments of NRMCA.

<sup>109</sup> *Id.*

<sup>110</sup> *See*, comments of AWWA.

<sup>111</sup> *Id.*

<sup>112</sup> *Id.*

rebanding, guardbands be created between its members' operations (and public safety) and those parties whose systems have been identified as interfering.<sup>113</sup> Excepting specialized treatment for its members based on claimed CII status, SBT agrees with the tenor of the comments.

#### API

API supports use of technical solutions as the first avenue for addressing interference problems.<sup>114</sup> If relocation out of 800 MHz is required, API recommends either interfering CMRS operators or public safety be moved as it is the conflict between these entities which appears to be most acute.<sup>115</sup> Under no circumstances, the institute states, should its members be required to relocate out of 800 MHz or be made to suffer the imposition of secondary status.<sup>116</sup> And, relocation of public safety to 700 MHz should be considered as a long-term solution, but API recognizes that this act is quite costly and may require Congressional approval.<sup>117</sup> SBT stands along side API in its comments.

#### PWC

Although SBT was initially in favor of the positions taken by the Coalition, concerns have arisen since the filing of initial comments which suggest that continued affiliation would

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<sup>113</sup> *Id.*

<sup>114</sup> *See*, comments of API at 3.

<sup>115</sup> *Id.* at 5 and 6.

<sup>116</sup> *Id.* at 9 and 10.

<sup>117</sup> *Id.* at 6.

create an incorrect impression of SBT's position. SBT does agree with and fully support the Coalition's comments that (i) public safety should be relocated to the 700 MHz band;<sup>118</sup> (ii) interfering operators should bear the burden of costs arising out of resolution; (iii) some method of protection from interference is required for all analog operators; (iv) low site, cellular architecture is at the root of the problem;<sup>119</sup> (v) analog operators and responsible digital operators (at present) do not present a threat of harmful interference to public safety systems; (vi) restrictions on operation of cellularized systems is required to avoid future interference;<sup>120</sup> (vii) specific procedures should be implemented to direct interfering operators to immediately resolve all cases of interference;<sup>121</sup> (viii) rebanding should be considered as a last resort;<sup>122</sup> and (ix) consideration should be given to whether relocating Nextel's operations to the 700 MHz band is feasible and desirable.<sup>123</sup> Accordingly, SBT agrees in large measure with the comments of the PWC, although SBT believes that more specific guidelines are necessary for future operation of cellularized systems, no special consideration should be provided to Motient regardless of its level of investment in 800 MHz, use of "campus" systems for guard band operations is highly questionable, and any reliance on the *Best Practices Guide* is wholly misplaced for any

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<sup>118</sup> See, comments of PWC at 1 and 6-7.

<sup>119</sup> *Id.* at 7-8.

<sup>120</sup> *Id.*

<sup>121</sup> *Id.* at 12

<sup>122</sup> *Id.* at 14.

<sup>123</sup> *Id.* at 23.

purpose.<sup>124</sup> Additionally, the Coalition's rebanding proposal for 800 MHz is too radical and expensive, although it is quite superior to Nextel's and should be commended for its suggestion as a worst case solution to the issues before the Commission. However, SBT disagrees with the "triggering" mechanisms contained within the comments which leave the issue of funding uncertain and may result in non-interfering operators bearing the cost of rebanding in some instances.<sup>125</sup> Finally, SBT is informed that on reply the PWC will support Nextel's receipt of 10 MHz of spectrum at 1.9 GHz for the purpose of forging a compromise. As explained fully herein, SBT strongly opposes that action as inequitable, unjustified, and resulting in a distinct advantage to Nextel which is unwarranted and undeserved.

#### UTC

The emphasis of the comments is on technology/market based solutions which do not require rebanding and which would allow all licensees to employ digital technology in the future, without needless prohibition. While UTC rejects radical rebanding proposals,<sup>126</sup> it emphasizes that interference to CII and public safety entities must be resolved.<sup>127</sup> UTC strongly rejects Nextel's proposal, but further rejects rebanding as a means of resolving interference concerns as UTC does not believe that any rebanding will serve as a solution for interference.<sup>128</sup> UTC also

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<sup>124</sup> *Id.* at 21.

<sup>125</sup> *Id.* at 17.

<sup>126</sup> *See*, comments of UTC at 9.

<sup>127</sup> *Id.* at 12–13.

<sup>128</sup> *Id.* at 9–14.

strongly opposes refarming the spectrum into narrowband channels. SBT agrees. UTC's proposal for any rebanding is for public safety operators in the NPSPAC channels to exchange frequencies with the "lower 80" licensees in wholly voluntary actions.<sup>129</sup> As explained below, SBT does not agree with the worst case rebanding plan suggested by UTC, but agrees in the main with the remainder of its comments.

In general, the associations' comments were consistent with the comments filed by individual members.<sup>130</sup> The vast majority of associations rejected Nextel's proposals as costly, unworkable and inequitable. The only associations in support of Nextel's proposals were those public safety entities seeking to obtain additional spectrum for their membership, however, even when a public safety association commented in support of the Nextel proposal, each one stated that Nextel's offer of \$500 million was far short of the funds necessary to accomplish rebanding.

Despite the difference of opinion regarding the Nextel proposal, certain common threads arose among all of the commenting associations: (1) the agency should seek immediate technical solutions to assist in relieving interference on the band; (2) the primary source of the interference is Nextel; (3) non-interfering parties should not be made to relocate within the 800 MHz band unless no other rational solution exists; and (4) the cost for any relocation of any non-interfering party should be borne by interfering parties or via federal funding, but not financed by the non-interfering party.

SBT was disappointed by the number of associations which made comments without specific recommendations regarding technical solutions. A number of comments identified the

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<sup>129</sup> *Id.* at 26.

<sup>130</sup> *See, e.g.* Industrial Concerns discussed *infra*.

problems, but failed to address any comprehensive method for dealing with the problem.

Therefore, within these reply comments, SBT seeks to offer specific guidelines which might be implemented without wholesale disruption of existing systems, to provide continuous operation of existing systems whenever possible. Although SBT is strongly opposed to Nextel's actions, SBT recognizes that technical solutions are the first and best avenue of resolution if such actions are mandated, and not merely referenced, with great specificity. Unlike some commenting parties, SBT does not seek to remove Nextel from the 800 MHz band. Such a suggestion is deemed nearly as radical as Nextel's proposal, although more equitable. Rather, SBT seeks to impose upon Nextel and all other similarly situated operators height/power/antenna restrictions to avoid and reduce the opportunity for interference, backed by concrete guidelines for resolving interference when and if it occurs.

A great number of the commenting associations supported relocation of public safety to the 700 MHz band and SBT agrees with this long-term solution. This experience has made it apparent that public safety's needs and uses of the spectrum would be better served if placed on a quieter spectrum reserve, away from low-site cellular architecture. The only resistance to this idea is based on cost of relocation and concerns regarding assurances that any such relocation be performed in a seamless manner. We sympathize and agree. Any such relocation should be seamless, gradual, and performed in a fully funded manner. However, the avenue for relocation should be created in the near term.

SBT recognizes that public safety's occupation of the 700 MHz band will take time, particularly when the specific channels are occupied by broadcast entities. However, ANY rebanding will take years. And, there exists substantial evidence that a rebanding solely at 800



MHz would take as many years (or longer). Therefore, if execution of a long-term solution is going to take years regardless of which solution is chosen, it is far more logical and equitable to have the solution be truly effective upon completion than a reshuffling that has limited results at tremendous costs to non-interfering entities.

It is incumbent upon the Commission to seek a balancing of interests and to determine whether the long term spectrum and operational needs of public safety entities is better served by relocation to 700 MHz via encouraging a vacation of the band by lingering broadcast entities; or whether the public interest is better served by rebanding all operators to shuffle uses of 800 MHz in hopes that the new configuration will improve operational compatibility among digital and analog operations, while costing billions; or whether the band should be left as is, with greater technical guidelines applied for future operations and system design.

SBT believes that the Commission should create a safe haven for expansion of public safety operations within the 700 MHz band, while promoting greater interoperability within that band. As a goal, interoperability will likely never be fully realized at 800 MHz either under the present environment or pursuant to a rebanding of 800 MHz. Or, if realized, the capacity of that function will be too limited for the purpose of truly coordinating emergency personnel during the most dire of circumstances. Although the recent experiences at the Pentagon are encouraging, the Commission might recognize that the disaster was confined to a limited area and, therefore, there continues to exist an issue regarding whether the channels are ready and the interoperability guidelines sufficient to coordinate response to a geographically larger event, for example, a hurricane. In sum, the logic for relocating public safety to 700 MHz is overwhelming.

The rebanding proposals which have been offered by other associations which include a reshuffling of use within the 800 MHz band should be viewed as "last resort" options. Neither the PWC nor UTC nor NAM proposals (or any variations likely on reply) have been recommended as a first choice by the respective commenters. And none of the proposals addresses adequately the problems associated with the border frequencies. In fact, none of these plans are good. Each carries with it underlying problems<sup>131</sup> and tremendous complexities that are potentially hazardous in execution and SBT believes that each of the commenting parties recognizes fully the difficulty that all persons and the agency will suffer if an 800 MHz rebanding plan is adopted without a concurrent migration of public safety to 700 MHz. The reshuffling will exact hardships on thousands of operations across the Country and cost billions to implement, with the end results being questionable when examined along side the enormous cost. Certainly there will continue to exist a serious and grave doubt as to whether any such plan will be effective.

SBT offers herein its proposal for 800 MHz rebanding which is offered ONLY in the event that the Commission determines that relocation of public safety entities to 700 MHz is politically and logically impossible AND if the Commission determines that the technical solutions recommended herein are insufficient to provide adequate protections to analog operations. Like all other such plans, it is not intended to be a cure-all and carries with it no warranty of fitness for use. Rather, it is offered as a last resort bandage to an ailing 800 MHz band. Perhaps the greatest difference is that it emphasizes the responsibility of interfering

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<sup>131</sup> For example, *see*, discussion *supra* regarding using "campus" systems as guardband occupants.

entities to be the source of the solution to the problem, rather than demanding sacrifice from innocent, non-interfering parties. In this regard, SBT avers that the plan is less disruptive, less costly, and more equitable than those others suggested.

### Vendors

Another group of commenting parties are vendors of goods and services, including manufacturers of radio equipment which is employed by consumers of both analog and digital equipment.<sup>132</sup> These comments represent an important contribution to this proceeding, providing some insight into the availability of necessary equipment, possible approaches to system design, and considerations of those entities which may need to modify products and services to comport with whatever decision the Commission makes.

### Motorola

Although its comments serve primarily as an insightful overview to the problem addressed within this proceeding, Motorola's opinions are helpful as it is the largest supplier of public safety equipment and is the sole supplier to Nextel. Thus, Motorola opines that rebanding alone will not solve all interference problems and does not address one of the primary sources of interference, intermodulation products.<sup>133</sup> Motorola estimates that adoption of the Nextel

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<sup>132</sup> See, comments of Qualcomm Incorporated ("Qualcomm"); E. F. Johnson Company ("EF Johnson"); Kenwood Communications Corporation ("Kenwood"); Smartlink Radio Networks, Inc. ("Smartlink"); RCC Consultants, Inc. ("RCC"); M/A-COM, Inc. ("MA-COM"); Radiosoft; UTAM, Inc. ("UTAM"); UTStarcom, Inc. ("UTStarcom"); NEC America, Inc. ("NEC"); Avaya, Inc. ("Avaya"); Motorola, Inc. ("Motorola").

<sup>133</sup> See, comments of Motorola at 11.

proposal will cost the industry between \$2.8 to \$3.9 billion, while the next, most expensive plan, NAM's, would cost the industry up to \$2.2 billion.<sup>134</sup> Accordingly, one of the most authoritative estimates presented in the rule making demonstrate that the Nextel offer of \$500 million will not begin to pay for the cost of its plan. Motorola seeks technical solutions to the problem and gives qualified support to the idea of relocating public safety to 700 MHz.<sup>135</sup>

#### Kenwood

Kenwood seeks more study on the issue and strongly encourages case-by-case resolution over any radical rebanding proposal.<sup>136</sup> Kenwood accurately points out that any rebanding proposal will result in severe loss of customer bases for local SMR operators and, thus, should be avoided if possible.<sup>137</sup> Kenwood opines that Nextel's plan is anti-competitive in design and effect, forcing out of the 800 MHz band all local competition by relocating each outside the band without compensation.<sup>138</sup> SBT agrees. Kenwood asks that all displaced operators be compensated by Nextel.<sup>139</sup>

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<sup>134</sup> *Id.* at 24.

<sup>135</sup> *Id.* at 18–20.

<sup>136</sup> *See*, comments of Kenwood at 2–5.

<sup>137</sup> *Id.* at 8–9.

<sup>138</sup> *Id.* at 10.

<sup>139</sup> *Id.* at 14.

### EF Johnson

EF Johnson resists relocation of either public safety or B/ILT operators and recommends that CMRS operators be relocated to 700 MHz, with public safety occupying the upper end of the 800 MHz band and B/ILT serving as a guard band between public safety and CMRS operations<sup>140</sup>. EF Johnson resists more stringent receiver standards as complicating the receiver certification process.<sup>141</sup> Rather, it would ask the Commission to rely on competitive pressure to cause manufacturers to design more interference resistant radios for future public safety operations.<sup>142</sup> If any greater technical restrictions are created for operation of equipment, it suggests that OOB from transmitters be the focus of the Commission's efforts. SBT believes that EF Johnson's comments, though well intentioned, are impractical in application. However, SBT is not convinced that mandated receiver standards, other than reduction of passband, are necessary or practical.

### Qualcomm

These comments, in all charity, read like an advertisement for Qualcomm's CDMA technology and the benefits which all parties might derive from its application. Beyond this obvious message, the comments contribute little to the discussion.

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<sup>140</sup> See, comments of EF Johnson at 3.

<sup>141</sup> *Id.* at 5.

<sup>142</sup> *Id.*

### Smartlink

The comments support the Commission's efforts to identify greater amounts of spectrum and improved method of interoperability for public safety. However, SmartLink discourages the Commission from setting equipment standards that might reduce innovation and would cause delay in development.<sup>143</sup>

### Avaya

Avaya focuses on the potential use of the 1910-1930 band for operation of Nextel's systems and strongly opposes any such use of UPCS spectrum as one that would ruin the band's function as a guard band.<sup>144</sup> Avaya states that displaced UPCS operators employing the band would require compensation.<sup>145</sup> Insofar as SBT rejects the notion that Nextel is entitled to any allocation at this band or any other above 1 GHz, SBT agrees.

### NEC

NEC's comments mirror Avaya's, asking that the UPCS spectrum not be employed as a method for resolving problems at 800 MHz.<sup>146</sup>

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<sup>143</sup> See, comments of Smartlink

<sup>144</sup> See, comments of Avaya at 9.

<sup>145</sup> *Id.* at 7.

<sup>146</sup> See, comments of NEC.

## M/A-COM

This commenter proposes that rebanding is the best (and only) solution to resolving interference and lofts a few proposals for accomplishing the goal.<sup>147</sup> M/A-COM questions the efficiency of case-by-case resolution as taking too long and being too costly.<sup>148</sup> Oddly, its rebanding proposals are estimated to take up to 15 years to accomplish.<sup>149</sup> SBT disagrees with M/A-COM's approach as being somewhat heavy handed and impractical in its application, which would wholly disrupt all operations at 800 MHz without any assurances that short term technical solutions would ever be applied.

## RadioSoft

RadioSoft supports case-by-case resolution in the short term, with a relocation of either Nextel or public safety out of the band entirely in the long term. Its rebanding proposal would reserve 851-856 MHz for public safety, 856-861 for B/ILT (and presumably local SMR), with the 861-869 MHz band employed for digital SMR.<sup>150</sup> Although SBT believes that RadioSoft's rebanding proposal is on the right path, if ANY rebanding is accomplished, SBT avers that the proposal lacks necessary comprehensive analysis as to methodology, funding and incumbent rights.

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<sup>147</sup> See, comments of M/A-COM at 4.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.* at 15.

<sup>150</sup> See, comments of Radiosoft at 4.

## RCC

The primary thrust of these comments is that public safety should be moved to the 700 MHz band.<sup>151</sup> SBT agrees. RCC supports its contentions with the comments that any restructuring of the 800 MHz band would only provide short term relief and would not provide a long term, better solution, and would require regulators and the industry to revisit the problem in the future.<sup>152</sup> SBT also agrees with this assessment.

The vendor comments are illuminating in that most are reflective of the status of 800 MHz operation at this time, yet are optimistic that problems arising from equipment concerns are likely to be resolved via further development spurred by competition. Although vendors suggested some rebanding proposals, little confidence was expressed in any rebanding proposal that was limited to 800 MHz. Accordingly, the vendors, as a whole, support relocation of CMRS or public safety to 700 MHz as an ultimate solution, and most support technical solutions to reduce the harmful effects of OOBE in the short term.

Although SBT understands some vendors' concerns with creating additional standards for receiver certification, SBT herein proposes some limited restrictions which will likely have little or no impact on the future development of equipment for public safety uses, including creating any delay in development or deployment of same. To reject entirely any such standards is to tie the hands of the agency to provide real relief in future operations.

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<sup>151</sup> See, comments of RCC.

<sup>152</sup> *Id.* at 2.